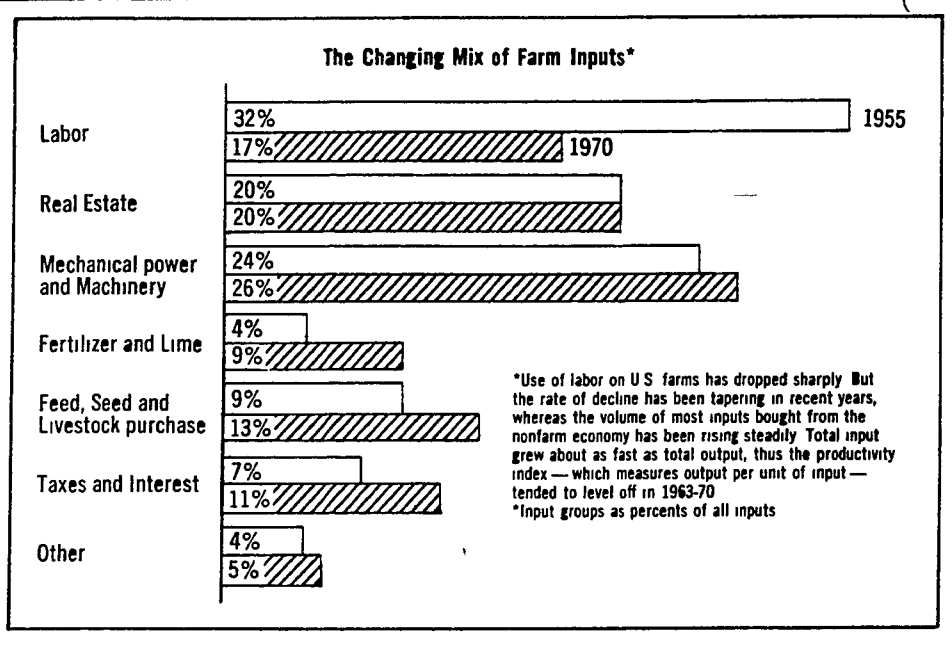

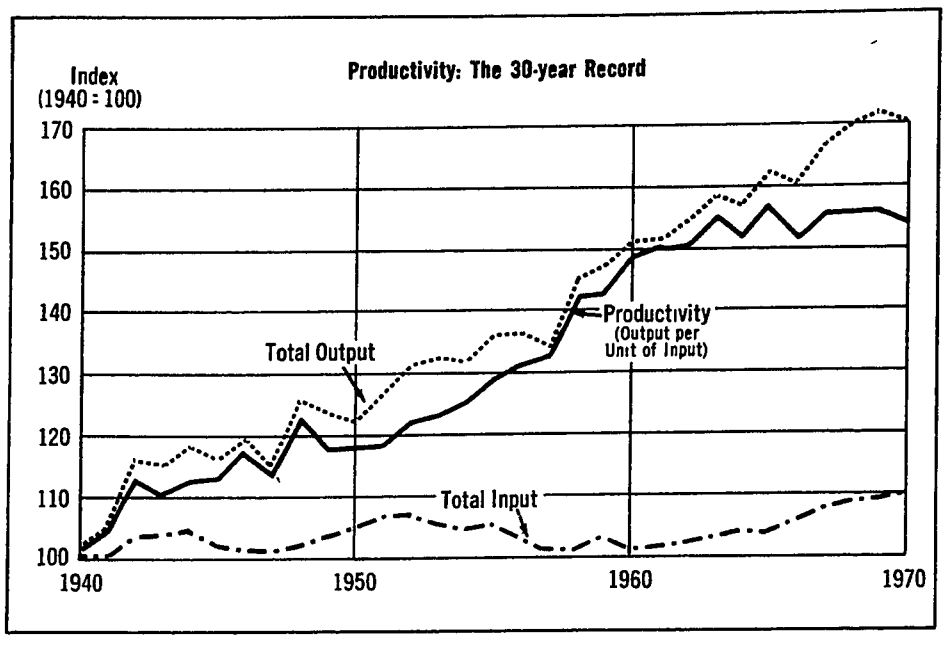

Farm Productivity Levels - - USDA Analyzes Why

The rate of output per unit of input has remained about the same since 1963. However, this could change quickly with the introduction of new technology to come.

When an industry has been showing gains in productivity for a number of years, statistics that indicate otherwise will raise some eyebrows ... and a lot of questions. Both reactions are stirred by the recent trend in U.S agriculture's productivity.

After heading upward for more than a decade, the productivity index in the early 1960's began to lose thrust. For the sixties as a whole, the gain was small by comparison to the phenomenal rises during most of the forties and fifties

The productivity index measures total agricultural output per unit of all inputs used in production or charged to the farming industry. When output and input advance at the same rate, the index stands still.

In many years during the 1960's the productivity index did go up—reaching record peaks twice.

However, a review of the decade's performance showed productivity rose by only 3 percent, versus 26 percent in 1950-60 and 18 percent in 1940-50.

Production itself went up over 13 percent in the decade of the 1960's.So, the lack of buoyancy in the productivity index suggests no immediate threat to our capacity to produce farm products Actually, total output could jump sharply and quickly by increasing the acreage in crops.

In 1970, farmers used 336 million acres for crops, 50 million fewer than in 1949. Most of the 50 million acres went into government diversion programs. Much of this land could quickly return to production at little added cost. Also, the Nation has a quarter billion acres of land in uses other than crops that is considered suitable for cultivation. If there were the economic incentives to do so, a large part of this acreage could also be brought into production.

Is the letup in productivity gains only temporary? No one knows for sure. But a similar question might have been asked back in the late 1940's, when the productivity index showed the same sluggishness as in the last half of the 1960's. The index resumed its skyward course around 1952.

Generally, technological developments spark productivity increases. Major ones—like the transition from horses to tractors, and from open-pollenated to hybrid corn—have repercussions lasting for decades.

The 1960's did not usher in major scientific breakthroughs for agriculture, although there continued a steady stream of improved farming method. These acted to buttress the index. However, in any one year, unfavorable weather or disease infestation may cause productivity to sag. Such was the case in 1970, when drought in part of the Corn Belt and Southern corn leaf blight in much of the rest of that region resulted in a 2-percent decline in the index.

There are several explanations for the slowdown in the 1960's that have to do with certain structural changes spurred by the new technology. One explanation related to economies of scale.

As the size of a farm operation increases, at first the costs per unit of output go down. At some point, the least-cost level of production is reached. This level varies by type of farm, and with the technology available to farmers at any one point in time.

Obviously, it takes a bigger field or a bigger hen house to efficiently use modern equipment. With the advent of sophisticated machinery—four- and six-row equipment and the rest—farmers expanded. Since World War II, the average farm size has grown from 195 acres to about 390. Meanwhile, numbers of farms were cut by more than half to around 2.9 million.

In the process of growth, many farms became of such size that output per unit of input did not increase as fast as it had when these farms first began to employ modern machinery, hybrid seeds, fertilizers, pesticies, etc. Some farms in the 1960's had approached the point of least-cost production.

Other farms kept on growing past the point of least-cost production. By producing more units they were able to take a lower profit per unit and still have a larger total income. These farms tended to hold down the average increase in the productivity index of all farms.

Even though many farms have achieved maximum economies of scale with present technology, the point of least-cost production could shift again with technological break-throughs.

Penn Manor Play Set

Penn Manor High School and the Senior Classs are presenting the play "Up The Down Staircase" at 8 p.m. November 19 and 20 in the High School Auditorium in Millersville. Admission is $1 for adults and 50 cents for students.